

What is claimed is:

1. A double valve comprising:

first and second unitary valve assemblies each having a respective inlet port,
5 a respective outlet port, a respective exhaust port, a respective first cross-mirror port,
and a respective second cross-mirror port;

first and second pilot assemblies coupled to said first and second unitary
valve assemblies, respectively;

a first plate coupled to said first and second unitary valve assemblies
10 including respective passages to provide a common inlet port coupled to said
respective inlet ports of said first and second unitary valve assemblies, a common
outlet port coupled to said respective outlet ports of said first and second unitary valve
assemblies, and a common exhaust port coupled to said respective exhaust ports of
said first and second unitary valve assemblies;

15 a second plate coupled to said first and second unitary valve assemblies
providing a first cross-connection between said first cross-mirror port of said first
unitary valve body and said second cross-mirror port of said second unitary valve
body, and providing a second cross-connection between said second cross-mirror port
of said first unitary valve body and said first cross-mirror port of said second unitary
20 valve body.

2. The double valve of claim 1 wherein said second plate further provides
first and second pressure monitoring passages coupled to said first and second cross-
connections, respectively.

25 3. The double valve of claim 2 further comprising first and second pressure
switches coupled to said first and second pressure monitoring passages, respectively.

4. The double valve of claim 3 further comprising first and second flow restrictors coupled between said first and second pressure switches and said first cross-connections of said first and second unitary valve assemblies, respectively.

5 5. The double valve of claim 2 further comprising:
an AND-gate having input ports coupled to said first and second pressure monitoring passages, respectively, and having an output port which is pressurized when both of said input ports receive a pressure greater than or equal to a predetermined pressure; and
10 a pressure switch coupled to said output port of said AND-gate for indicating whether said output port is pressurized.

6. The double valve of claim 1 further comprising:
first and second pilot passages supplying pressurized fluid from said first
15 cross-mirror ports of said first and second unitary valve assemblies, respectively, to said first and second pilot assemblies, respectively.

7. The double valve of claim 6 wherein said first and second pilot passages are comprised of first and second tubing pieces, respectively, wherein said double
20 valve further comprises first and second pilot plates coupling said first and second pilot assemblies with said first and second unitary valve assemblies, respectively, and wherein said first and second tubing pieces are coupled between said second plate and said first and second pilot plates.

25 8. The double valve of claim 1 wherein said first and second unitary valve assemblies are comprised of in-line valves.

9. The double valve of claim 1 wherein said first and second unitary valve assemblies are comprised of base-mounted valves having bases conforming to standard dimensions.

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